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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,474	12/10/2003	Hitoshi Tanaka	P24359	5383
7055	7590	07/27/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			HASAN, MOHAMMED A	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,474

Applicant(s)

TANAKA ET AL.

Examiner

Mohammed Hasan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 3 - 5, 7 - 11 is/are rejected.
- 7) ☒ Claim(s) 2 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ~~12-10-03~~ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/10/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt of acknowledged of papers submitted under 35 U.S.C. 119 (a) – (d), which papers have placed of record in the file.

Oath/Declaration

2. Oath and declaration filed on 12/10/2003 is accepted.

Information Disclosure Statement

3. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 3/10/2004 have all been considered and made of record (note the attached copy of form PTO – 1449).

Drawings

4. The drawings are objected to because Figures 1 and 2 needs to label the zoom lens barrel 10. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet

should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3 – 5, and 7 - 11 are rejected under 35 U.S.C. 102 (b) as being anticipated Nomura et al (6,519,096 B2).

Regarding claim 1, Nomura et al discloses (refer to figure 1) a cam mechanism for a lens barrel (1) comprising: an annular member (15) which is linearly guided along an optical axis, an annular member having at least one cam follower (17f) on an outer peripheral surface thereof, a cam ring having at least one cam groove C2 on an inner peripheral surface thereof, a cam ring at least one cam groove on an inner peripheral surface thereof, a cam groove including a photographing section for moving an annular member too a ready – to – photograph position thereof, and an accommodation position thereof at which no photographing operation is performed, cam follower being engaged in cam groove, a biasing device (30) (column 13, lines 56 – 65) for biasing annular member forward to normally press a cam follower against a front cam surface in a cam groove, wherein a rear end portion of cam groove is open at a rear end surface of cam ring to serve as accommodation section, and wherein the cam follower is disengageable from front cam surface in cam groove against a biasing force of biasing device when cam follower is engaged in accommodation section (column 6, lines 38 – 56).

Regarding claim 3, Nomura et al discloses (refer to figure 1) the lens barrel (17) comprises a photographing optical system including an optical member supported by annular member, wherein the optical member includes at least one intermediate lens group (L1) of photographing optical system and wherein a lens frame of a front lens group of photographing optical system which is positioned in front of intermediate lens

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group is in contact with annular member when annular is in accommodation position (column 6, lines 38 – 56) .

Regarding claim 4, Nomura et al discloses (refer to figure 1) the biasing device 30 comprises a coil spring positioned between an annular and a lens frame of a rear lens group of photographing optical system which is positioned behind intermediate lens group (column 13, lines 62 – 64).

Regarding claim 5, Nomura et al discloses (refer to figure 1) the lens frame 19 of rear lens group is in contact with a light shield plate provided in lens barrel by spring force of a coil spring when an annular member is in accommodation position (column 13, lines 44 – 46).

Regarding claim 7, Nomura et al discloses, wherein the accommodation section (e.g., C1A2) is elongated in a circumferential direction of cam ring (column 21, lines 19 – 32).

Regarding claim 8, Nomura et al discloses, wherein the optical member, which is supported by an annular member, comprises a shutter unit 21 which is fixed to an annular member (column 11, line 31).

Regarding claim 9, Nomura et al discloses (refer to figure 1) wherein the annular member (17) comprises : a ring portion with a center thereof on optical axis, and at least one guide arm (e.g., linear guide bosses 17d) , which is projects reward from a ring portion to be linearly guided along an optical axis, wherein a cam follower extends radially outwards from a guide arm (column 6, lines 45 – 46).

Regarding claim 10, Nomura et al discloses, wherein the lens barrel comprises a telescoping type zoom lens barrel 1 having a plurality of external telescoping barrels, a light shield plate 42 being fixed to a rear end of an outermost external telescoping barrel of plurality of external telescoping barrels (column 18, line 39).

Regarding claim 11, Nomura et al discloses (refer to figure 1) a cam mechanism for a lens barrel 1 comprising: an annular member which is linearly guided along an optical axis, an annular member having at least one cam follower 18f, a cam ring 17 positioned coaxially with an annular member and having at least one cam groove C1, wherein rotation of cam ring causes an annular member to move along an optical axis due to engagement of cam groove with a cam follower formed on an annular member (30) (column 13, lines 56 – 65), a cam groove including a photographing section for moving an annular member to a ready – to – photograph position thereof, and an accommodation section for positioning an annular member to a retracted position positioned behind ready – to – photograph position in an optical axis direction (column 15, lines 1 – 22) , wherein a rear end portion of cam groove is open at a rear end surface of cam ring to be formed as accommodation section, and wherein the cam follower is disengageable from front cam surface in cam groove against spring force of a biasing device (30) when engaged in retracting section (column 13, lines 56 – 65) .

Allowable Subject Matter

6. Claims 2 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show accommodation section overlaps the circumferential groove and the outer flange includes at least one cut – out portion which allows a cam follower to enter a cut – out portion when an annular member is in accommodation section and a plurality of ready – to – photograph positions corresponding to a plurality of different focal lengths.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art Nomura et al (6, 456,445 B2) discloses a zoom lens having a cam mechanism.

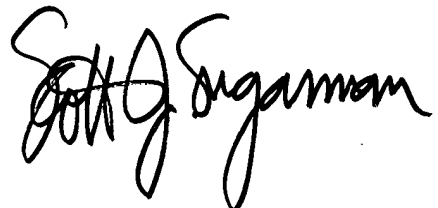
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH
July 21, 2004



Scott J. Sugarman
Primary Examiner